

WHAT IS CLAIMED IS:

- 1           1.    A system for combining narrowband and broadband  
2   transport mechanisms in a communications network, comprising:  
3               a first node, said first node including switching  
4   intelligence;  
5               a plurality of second nodes, each second node of  
6   said plurality of second nodes including broadband switching  
7   fabric;  
8               an interworking entity, said interworking entity  
9   operatively connectable to said first node and said plurality  
10   of second nodes, said interworking entity adapted to receive  
11   data in a first format from said first node, map the received  
12   data into a second format interpretable by said plurality of  
13   second nodes, and send the mapped data to at least one second  
14   node of said plurality of second nodes; and  
15               wherein said interworking entity thereby enables  
16   said plurality of second nodes to be controlled, at least  
17   partially, by the switching intelligence of said first node.

1           2.    The system according to claim 1, wherein said first  
2   node is comprised of a telecommunications node, said  
3   telecommunications node including narrowband switching  
4   fabric.

1           3.    The system according to claim 1, wherein said  
2   interworking entity comprises a third node between said first  
3   node and said plurality of second nodes.

1           4.    The system according to claim 1, wherein said  
2   interworking entity is at least one of part of and co-located  
3   with a second node of said plurality of second nodes.

1           5.    The system according to claim 1, wherein said  
2   interworking entity is further adapted to emulate an  
3   interface for a synchronous transfer mode (STM)-based node  
4   with respect to said first node.

1           6.    The system according to claim 1, wherein said  
2   plurality of second nodes comprise at least part of a  
3   broadband network.

1           7.    The system according to claim 6, wherein each  
2   second node of said plurality of second nodes is adapted to  
3   communicate signaling information and data information over  
4   the broadband network and to convert broadband information  
5   into another media type.

1           8.    The system according to claim 6, wherein the mapped  
2   data comprises instructions for the at least one second node  
3   to establish a communication path through at least a portion  
4   of the broadband network.

1           9.    The system according to claim 1, wherein the  
2   received data comprises at least one first network address,  
3   and the mapped data comprises at least one second network  
4   address.

1           10. The system according to claim 9, wherein the at  
2   least one first network address comprises at least one trunk  
3   connection.

1           11. The system according to claim 9, wherein the at  
2   least one second network address comprises at least one  
3   asynchronous transfer mode (ATM) identifier.

1           12. An arrangement for combining narrowband and  
2    broadband transport mechanisms in a communications network,  
3    comprising:

4                a first node, said first node including switching  
5    intelligence;

6                a second node, said second node including broadband  
7    switching fabric; and

8                an interworking entity, said interworking entity  
9    operatively connectable to said first node and said second  
10   node, said interworking entity adapted to receive data in a  
11   first format from said first node, map the received data into  
12   a second format interpretable by said second node, and send  
13   the mapped data to said second node.

1           13. The arrangement according to claim 12, wherein the  
2    first format comprises a circuit-switched format, and the  
3    second format comprises a packet-switched format.

1           14. A system for combining narrowband and broadband  
2 transport mechanisms in a communications network, comprising:  
3           a first node, said first node including call  
4 control functionality and circuit-switched connection control  
5 functionality;  
6           a plurality of second nodes, each second node of  
7 said plurality of second nodes including packet-switched  
8 connection control functionality;  
9           an interworking entity, said interworking entity  
10 operatively connected to said first node and to said  
11 plurality of second nodes, said interworking entity adapted  
12 (i) to receive routing data in a circuit-switched format from  
13 said first node, (ii) to map the received data into a packet-  
14 switched format that is implementable by said plurality of  
15 second nodes, and (iii) to send the mapped data to at least  
16 one second node of said plurality of second nodes.

1           15. The system according to claim 14, wherein the  
2 circuit-switched format comprises addresses corresponding to  
3 switch devices.

1           16. The system according to claim 14, wherein the  
2   packet-switched format comprises addresses corresponding to  
3   an H.248 protocol.

1           17. The system according to claim 14, wherein said  
2   first node includes a synchronous transfer mode (STM) switch,  
3   and the at least one second node of said plurality of second  
4   nodes includes an asynchronous transfer mode (ATM) switch.

1           18. The system according to claim 14, further  
2   comprising:

3                 a plurality of third nodes, each third node of said  
4   plurality of third nodes connected to the at least one second  
5   node of said plurality of second nodes; and

6                 wherein each third node of said plurality of third  
7   nodes is configured to handle a different telecommunications  
8   protocol.

1           19. The system according to claim 18, wherein the at  
2           least one second node is adapted to convert media of one type  
3           to media of another type, the another type corresponding to  
4           a different telecommunications protocol that is associated  
5           with at least one third node of said plurality of third  
6           nodes.

1           20. The system according to claim 14, wherein at least  
2           one second node of said plurality of second nodes is adapted  
3           to add a communication path therethrough responsive to the  
4           mapped data.

1           21. The system according to claim 14, wherein at least  
2           one second node and another node of said plurality of second  
3           nodes are adapted to add a communication path therebetween  
4           responsive to the mapped data.



1           22. A method for combining narrowband and broadband  
2   transport mechanisms in a communications network, comprising  
3   the steps of:

4                sending a first communication path instruction from  
5   a first node to a second node;

6                mapping the first communication path instruction  
7   to a second communication path instruction at the second  
8   node;

9                sending the second communication path instruction  
10   from the second node to at least one third node; and

11               establishing a communication path responsive to the  
12   second communication path instruction.

1           23. The method according to claim 22, further  
2   comprising the step of:

3                performing a destination number analysis to derive  
4   the first communication path instruction at the first node.

1           24. The method according to claim 22, further  
2 comprising the step of:

3                   receiving the second communication path instruction  
4 at the second node.

1           25. The method according to claim 22, wherein said step  
2 of establishing a communication path responsive to the second  
3 communication path instruction comprises the step of  
4 establishing the communication path in a broadband network.

1           26. The method according to claim 22, wherein the first  
2 communication path instruction pertains to a circuit-based  
3 address space, and the second communication path instruction  
4 pertains to a packet-based address space.